

MDG 5: Improve Maternal Health

Snapshots

- Maternal health improved significantly in the Asia and Pacific region, with the maternal mortality ratio reduced by more than half between 1990 and 2010. Still, 28 of 38 reporting economies could fall short of achieving the target, which is a 75% reduction in maternal mortality ratio by 2015.
- The proportion of births attended by skilled health personnel is high in most economies. However, 23 of 41 economies with data are expected to miss the target to reduce births without skilled attendants by 75%.
- Renewed efforts are needed to provide women with access to good quality healthcare during pregnancy. The target of at least one antenatal care visit has been met or is expected to be met in 19 of 32 reporting economies, including the People's Republic of China (PRC) and Indonesia, but the target may not be achieved in Bangladesh, India, Pakistan, and 10 others.

Introduction

Millennium Development Goal (MDG) 5 has two targets:

- 5.A: *Reduce, by three-quarters, between 1990 and 2015, the MMR.* The MMR is calculated as the number of maternal deaths per 100,000 live births. A related indicator is the number of births attended by skilled health personnel who are trained to conduct deliveries and care for newborns.
- 5.B: *Achieve, by 2015, universal access to reproductive health services.* These services cover advice on contraceptive methods and family planning, antenatal care, and transmission of HIV/AIDS and other sexually transmitted diseases. This target, which was introduced in the revised Millennium Development Goal (MDG) framework of 2008, has no direct indicator and is measured by a set of four related indicators—contraceptive use, adolescent birth rates, antenatal care coverage, and unmet need for family planning.

Key trends

Maternal deaths fell by more than half between 1990 and 2010. Figure 5.1 shows the number of maternal deaths per 100,000 live births for 40 economies. All but two reduced the MMR between 1990 and 2010, the exceptions being Georgia and Tonga. The MMR for the region as a whole fell from 388 in 1990 to 149 in 2010, putting it well below the global average of 210. The PRC's MMR fell from 120 in 1990 to 37 in 2010. Bangladesh, India, Indonesia, and Pakistan, the other four most populous economies, also achieved large reductions, but their MMRs still were in the range of 200–260 for the latest year.

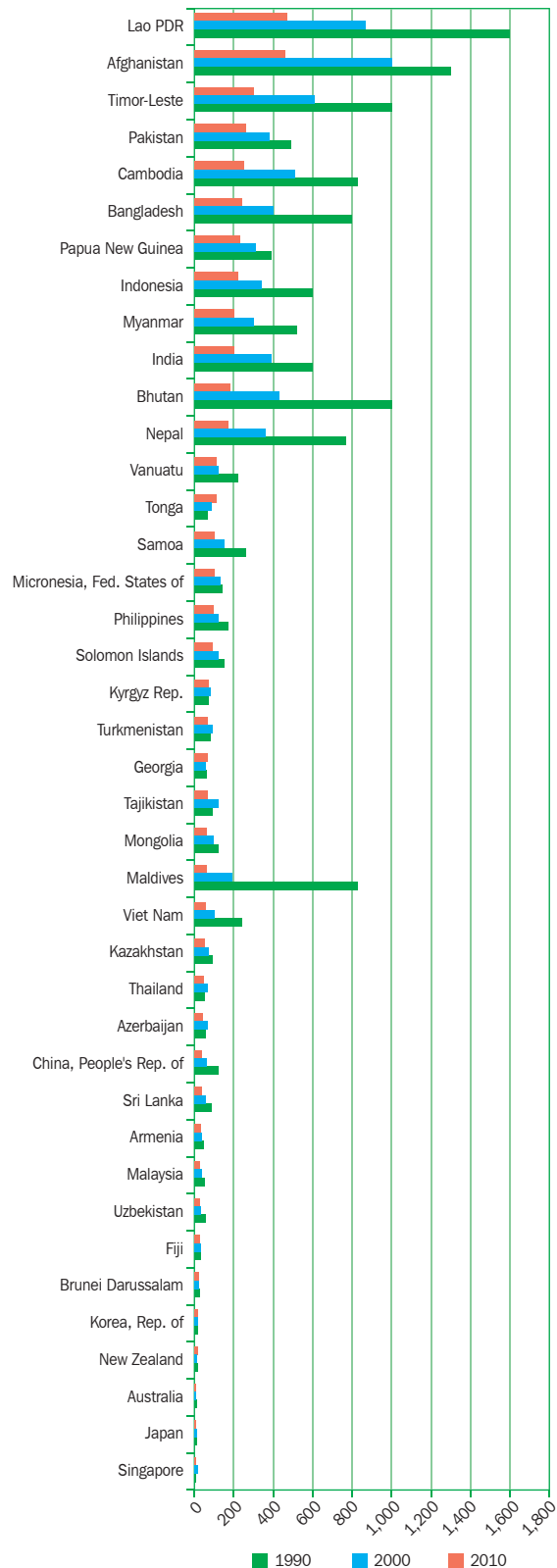
The Maldives achieved the sharpest reduction, a 93% cut in its MMR, from 830 in 1990 to 60 in

2010. Bhutan, Nepal, and Viet Nam also met the 75% reduction target. Box 5.1 shows that six others, including Bangladesh and the PRC, are on track to meet the target by 2015, leaving 28 expected to fall short.

Economies with the lowest rates of maternal deaths in 2010 were Singapore (3); Taipei, China (4); Japan (5); and Australia (7).

The presence of a doctor, nurse, or midwife reduces the risk of maternal death or disability. A birth attendant with the necessary training and medicines can administer assistance to prevent or manage life-threatening complications during deliveries and has the knowledge to decide if patients need a higher level of care.

Figure 5.1 **Maternal mortality ratio, 1990, 2000, and 2010**
(deaths per 100,000 live births)



Lao PDR = Lao People's Democratic Republic.
Source: Table 5.1.

Box 5.1 **Progress toward the target to reduce the maternal mortality ratio**

Early achievers

Bhutan	Nepal
Maldives	Viet Nam

On track

Bangladesh	Lao PDR
Cambodia	Taipei, China
China, People's Rep. of	Timor-Leste

Slow progress

Afghanistan	Myanmar
Armenia	Pakistan
Azerbaijan	Papua New Guinea
Brunei Darussalam	Philippines
Fiji	Samoa
Georgia	Singapore
India	Solomon Islands
Indonesia	Sri Lanka
Kazakhstan	Tajikistan
Korea, Rep. of	Thailand
Kyrgyz Rep.	Turkmenistan
Malaysia	Uzbekistan
Micronesia, Fed. States of	Vanuatu
Mongolia	

No progress/regressing

Tonga

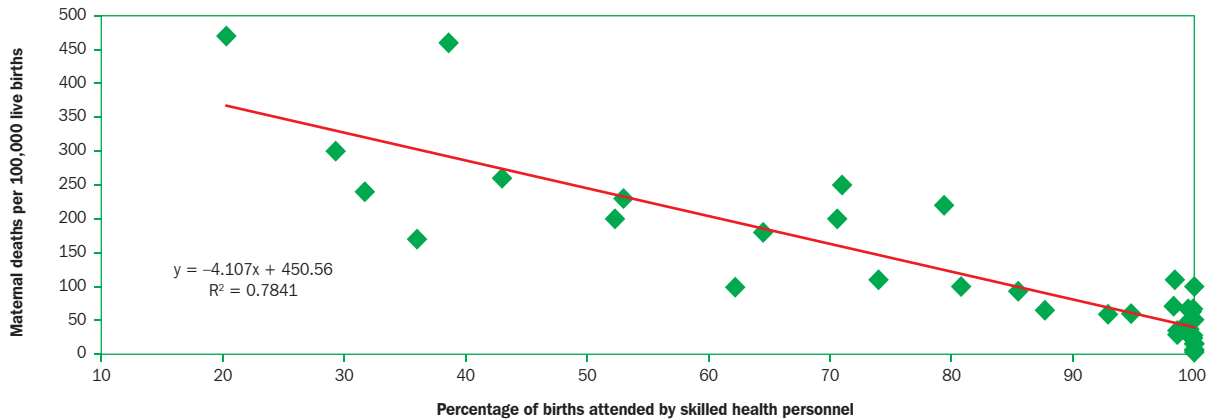
Lao PDR = Lao People's Democratic Republic.

Source: Table 5.1.

Figure 5.2 plots maternal deaths per 100,000 live births against the percentage of births attended by skilled health personnel in 40 economies that have data for both variables for recent years. The linear regression suggests that 78% of the variation in MMRs is explained by whether skilled health personnel were in attendance. The regression results also suggest that MMRs fall by 4.1 per 100,000 live births for every percentage point increase in the share of births attended by skilled health personnel.

Table 5.1 presents the proportion of births attended by trained health workers. At least 50% of births take place in the presence of such personnel in 40 of the 46 economies with data. For 28 of these economies, more than 90% of births are in the presence of trained attendants.

Figure 5.2 Maternal deaths versus births attended by skilled health personnel, 2010 or latest year



Source: Table 5.1.

The MDG target is to reduce, by three-quarters between 1990 and 2015, the percentage of births that are not attended by skilled health personnel. Box 5.2 shows that 15 of 41 economies, including the PRC, have achieved the target. Indonesia and two others are on track to reach the target in the next 2 years. At current rates of progress, though, 23 economies will miss the target, including Bangladesh, India, and Pakistan. Some that might not meet the goal already have high rates of coverage by skilled birth attendants—coverage already exceeds 99% in Armenia, Fiji, and Thailand (Table 5.1).

Economies with the lowest percentage of births in the presence of trained health professionals were the Lao People’s Democratic Republic (Lao PDR) (20%), Timor-Leste (29%), Bangladesh (32%), Nepal (36%), Afghanistan (39%), and Pakistan (43%).

Box 5.2 Progress toward the target for birth attendance by skilled health personnel

Early achievers

Brunei Darussalam	Micronesia, Fed. States of
China, People’s Rep. of	Mongolia
Cook Islands	Palau
Georgia	Sri Lanka
Kazakhstan	Tonga
Korea, Rep. of	Turkmenistan
Malaysia	Uzbekistan
Marshall Islands	

On track

Bhutan	Viet Nam
Indonesia	

Slow progress

Afghanistan	Nepal
Armenia	Pakistan
Azerbaijan	Philippines
Bangladesh	Samoa
Cambodia	Solomon Islands
India	Tajikistan
Maldives	Timor-Leste
Myanmar	

No progress/regressing

Fiji	Papua New Guinea
Kiribati	Thailand
Kyrgyz Rep.	Tuvalu
Lao PDR	Vanuatu

Lao PDR = Lao People’s Democratic Republic.
Source: Table 5.1.

Many women do not receive adequate antenatal care.

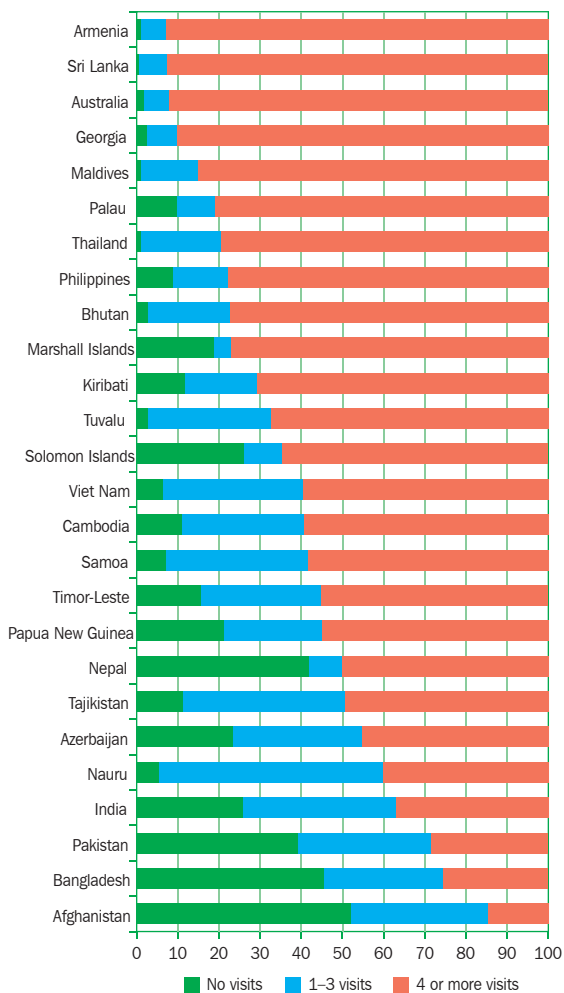
Good quality care during pregnancy supports the health and survival of mothers and their babies. The World Health Organization (WHO) recommends a minimum of four antenatal care visits, which should include tetanus toxoid vaccination, treatment to prevent malaria in countries where it is endemic, and screening and treatment for infections. Antenatal care also involves advice on diet, exercise, feeding, and childbirth techniques from a doctor, nurse, or midwife. The MDG target is considered attained when 95% of births are preceded by at least one antenatal care visit.

Figure 5.3 charts 26 economies with data on the number of antenatal care visits as a percentage of live births. Economies toward the top half of the figure

had more antenatal care visits, with a high proportion of pregnant women benefiting from four or more visits to skilled health personnel. Antenatal coverage was low in countries toward the bottom of the figure. Indeed, more than 40% of mothers received no antenatal care from skilled personnel in Afghanistan, Bangladesh, and Nepal.

Box 5.3 shows progress toward the target of at least one antenatal care visit. Of 32 economies for which an assessment is possible, 19 have attained the target or are expected to do so by 2015, including the PRC and Indonesia. Among the 13 that could fall short at their current rates of progress are five with large populations—Bangladesh, India, Myanmar, Pakistan, and the Philippines.

Figure 5.3 Antenatal care coverage as a percentage of live births, latest year



Source: Table 5.2.

Box 5.3 Progress toward the target for antenatal care coverage

Early achievers

Armenia	Maldives
Bhutan	Mongolia
Brunei Darussalam	Sri Lanka
Cook Islands	Thailand
Georgia	Turkmenistan
Kazakhstan	Uzbekistan
Kyrgyz Rep.	

On track

China, People's Rep. of	Malaysia
Indonesia	Tajikistan
Kiribati	Viet Nam

Slow progress

Afghanistan	Myanmar
Azerbaijan	Nepal
Bangladesh	Pakistan
Cambodia	Papua New Guinea
India	Philippines
Lao PDR	Timor-Leste

No progress/regressing

Palau

Lao PDR = Lao People's Democratic Republic.

Source: Table 5.2.

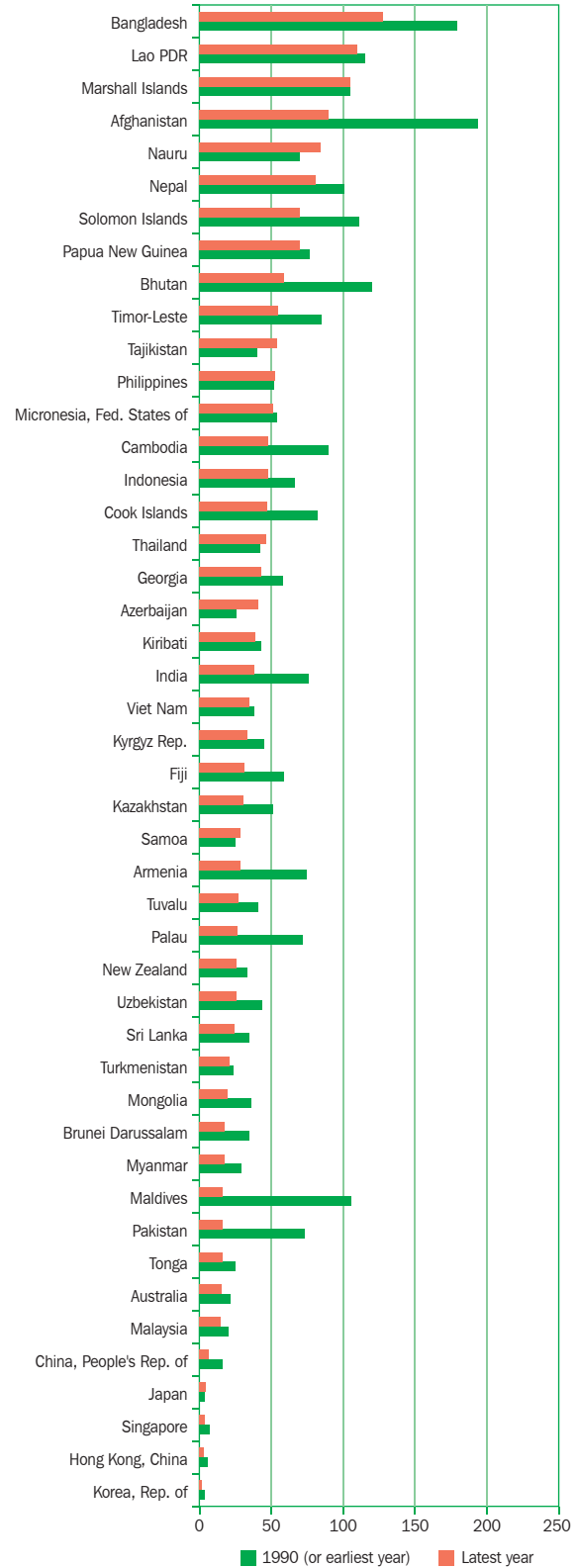
Early childbearing heightens risks for both mother and child. The WHO notes that adolescent mothers face higher risks of maternal deaths and of health problems during and after pregnancy, and a greater likelihood of stillbirths, preterm births, and children with low birth weights.

Figure 5.4 shows the number of live births per thousand women aged 15–19 years for 47 economies. The birth rate among adolescents fell, often sharply, in all but seven economies since the 1990s. In the Maldives, the number of adolescent births fell from 106 to 16, in Pakistan from 73 to 16, and in the PRC from 16 to 6. However, increases were seen in Azerbaijan, Japan, Nauru, the Philippines, Samoa, Tajikistan, and Thailand.

Economies with the highest rates of births to adolescents in the latest year were Bangladesh (128), the Lao PDR (110), the Marshall Islands (105), Vanuatu (92), Afghanistan (90), Nauru (84), and Nepal (81).

Part of the strategy to improve maternal health is to prevent unintended or closely spaced pregnancies through universal access to reproductive health. The contraceptive prevalence rate, or the percentage of married women aged 15 to 49 years who practice any form of contraception, is a proxy indicator for access to reproductive health. Table 5.2 shows that at least half the married women in 22 of 43 reporting economies had used contraception in the latest year. By subregion, rates of contraception were high in East Asia (85% of married women in the PRC) and generally low in the Pacific (22% in Kiribati and Timor-Leste).

Figure 5.4 Adolescent birth rate per 1,000 women 15–19 years, 1990 or earliest and latest year



Lao PDR = Lao People's Democratic Republic.
Source: Table 5.2.

Figure 5.5 presents the average annual change in the contraceptive prevalence rate for 36 economies. Afghanistan recorded the highest growth, although its contraceptive prevalence rate was still low at 22% of married women in 2010. Use of contraception in Cambodia increased from just 13% in 1995 to 51% in 2011. Fourteen economies showed a decline in use of contraceptives.



Data issues and comparability

The most reliable information on maternal mortality comes from vital registration records or other administrative sources. In many developing economies, however, registration records are not well maintained, with many births taking place at home rather than in health facilities, and many not being attended by trained health personnel. Mortality ratios for these economies are based on household surveys of varying reliability. The estimates presented are point estimates and the lower and upper bounds will reflect the range of uncertainty in the estimates.

Data on the proportion of births attended by skilled health personnel and on the proportion preceded by an antenatal care visit are usually collected through household surveys. It is difficult to achieve a standardized definition of skilled health personnel due to differences in training.

Data on adolescent birth rates are derived from vital registration systems or household surveys. The data may suffer from limitations such as misreporting of the mother's age and exclusion of previous births.

Data on contraceptive prevalence rates are obtained mostly from demographic, health, or socioeconomic surveys.

MDG 5 Targets and Indicators

Table 5.1 **Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio**

Regional Member	5.1 Maternal Mortality Ratio (per 100,000 live births)			5.2 Proportion of Births Attended by Skilled Health Personnel (%)	
	1990	2000	2010	Earliest Year	Latest Year
Developing Member Economies					
Central and West Asia^a	450	407	239		
Afghanistan	1300	1000	460	14.3 (2003)	38.6 (2011)
Armenia	46	38	30	99.7 (1990)	99.5 (2010)
Azerbaijan	56	65	43	97.3 (1990)	99.4 (2010)
Georgia	63	58	67	96.6 (1990)	99.9 (2009)
Kazakhstan	92	70	51	99.0 (1990)	100.0 (2010)
Kyrgyz Republic	73	82	71	98.9 (1990)	98.3 (2010)
Pakistan	490	380	260	18.8 (1991)	43.0 (2011)
Tajikistan	94	120	65	90.3 (1991)	87.7 (2010)
Turkmenistan	82	91	67	95.8 (1996)	99.5 (2006)
Uzbekistan	59	33	28	97.5 (1996)	99.9 (2006)
East Asia^a	116	59	36		
China, People's Rep. of	120	61	37	94.0 (1990)	99.6 (2010)
Hong Kong, China	...	...	...	...	...
Korea, Rep. of	18	19	16	98.0 (1990)	100.0 (1997)
Mongolia	120	96	63	93.6 (1998)	99.8 (2011)
Taipei, China	12	8	4	...	...
South Asia^a	622	387	201		
Bangladesh	800	400	240	9.5 (1994)	31.7 (2011)
Bhutan	1000	430	180	14.9 (1994)	64.5 (2010)
India	600	390	200	34.2 (1993)	52.3 (2008)
Maldives	830	190	60	90.0 (1994)	94.8 (2009)
Nepal	770	360	170	7.4 (1991)	36.0 (2011)
Sri Lanka	85	58	35	94.1 (1993)	98.6 (2007)
Southeast Asia^a	407	236	157		
Brunei Darussalam	29	24	24	98.0 (1994)	99.9 (2009)
Cambodia	830	510	250	34.0 (1998)	71.0 (2010)
Indonesia	600	340	220	31.7 (1991)	79.4 (2007)
Lao PDR	1600	870	470	19.4 (2000)	20.3 (2006)
Malaysia	53	39	29	92.8 (1990)	98.6 (2009)
Myanmar	520	300	200	46.3 (1991)	70.6 (2010)
Philippines	170	120	99	52.8 (1993)	62.2 (2008)
Singapore	6	15	3	...	100.0 (1998)
Thailand	54	66	48	99.3 (2000)	99.5 (2009)
Viet Nam	240	100	59	77.1 (1997)	92.9 (2011)
The Pacific^a	416	309	212		
Cook Islands	...	...	...	99.0 (1991)	100.0 (2008)
Fiji	32	31	26	100.0 (1998)	99.7 (2010)
Kiribati	...	...	...	72.0 (1994)	79.8 (2009)
Marshall Islands	...	...	...	94.9 (1998)	99.0 (2010)
Micronesia, Fed. States of	140	130	100	92.8 (1999)	100.0 (2009)
Nauru	...	...	...	...	97.4 (2007)
Palau	...	...	...	99.0 (1990)	100.0 (2010)
Papua New Guinea	390	310	230	53.2 (1996)	53.0 (2006)
Samoa	260	150	100	76.0 (1990)	80.8 (2009)
Solomon Islands	150	120	93	83.5 (1994)	85.5 (2007)
Timor-Leste	1000	610	300	25.8 (1997)	29.3 (2010)
Tonga	67	87	110	92.0 (1991)	98.4 (2010)
Tuvalu	...	...	...	100.0 (1990)	97.9 (2007)
Vanuatu	220	120	110	87.0 (1994)	74.0 (2007)
Developed Member Economies^a	12	10	6		
Australia	10	9	7	100.0 (1991)	100.0 (1999)
Japan	12	10	5	100.0 (1990)	100.0 (1996)
New Zealand	18	12	15	95.0 (1994)	100.0 (1995)
DEVELOPING MEMBER ECONOMIES^a	395	280	152		
REGIONAL MEMBERS^a	388	274	149		
WORLD	400	320	210		

... = Data not available at cutoff date.

a Aggregates are derived for reporting economies only.

Sources: Millennium Indicators Database Online (UNSD 2013); for Taipei, China: Directorate-General of Budget, Accounting and Statistics.

MDG 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health**

Regional Member	5.3 Contraceptive Prevalence Rate (% of married women 15–49 years)		5.4 Adolescent Birth Rate (per 1,000 women 15–19 years)	
	Earliest Year	Latest Year	1990	Latest Year
Developing Member Economies				
Central and West Asia				
Afghanistan	4.9 (2000)	21.8 (2010)	194.0 (1993)	90.0 (2008)
Armenia	56.0 (1991)	54.9 (2010)	74.6	28.3 (2010)
Azerbaijan	55.1 (2000)	51.1 (2006)	25.6	40.7 (2009)
Georgia	40.5 (2000)	53.4 (2010)	58.1	43.0 (2011)
Kazakhstan	59.1 (1995)	51.0 (2011)	51.0	30.7 (2008)
Kyrgyz Republic	59.5 (1997)	47.8 (2006)	45.3	33.5 (2010)
Pakistan	11.8 (1991)	27.0 (2008)	73.3 (1992)	16.1 (2007)
Tajikistan	33.9 (2000)	27.9 (2012)	40.0	54.0 (2011)
Turkmenistan	...	61.8 (2000)	24.0	21.0 (2006)
Uzbekistan	55.6 (1996)	64.9 (2006)	44.0	25.5 (2006)
East Asia				
China, People's Rep. of	84.6 (1992)	84.6 (2006)	16.0	6.2 (2009)
Hong Kong, China	86.2 (1992)	79.5 (2007)	5.8	3.0 (2011)
Korea, Rep. of	79.4 (1991)	80.0 (2009)	4.0	1.8 (2009)
Mongolia	57.3 (1994)	55.0 (2010)	36.4	19.8 (2008)
Taipei, China	...	...	16.7	3.6 (2011)
South Asia				
Bangladesh	39.9 (1991)	61.2 (2011)	179.0	128.0 (2009)
Bhutan	18.8 (1994)	65.6 (2010)	120.0 (1993)	59.0 (2009)
India	40.7 (1993)	54.8 (2008)	76.0 (1991)	38.5 (2009)
Maldives	29.0 (1991)	34.7 (2009)	106.0	16.1 (2010)
Nepal	24.1 (1992)	49.7 (2011)	101.0	81.0 (2009)
Sri Lanka	66.1 (1993)	68.4 (2007)	35.0 (1991)	24.3 (2006)
Southeast Asia				
Brunei Darussalam	...	...	34.5	17.8 (2008)
Cambodia	12.6 (1995)	50.5 (2011)	90.0 (1993)	48.0 (2008)
Indonesia	49.7 (1991)	61.9 (2012)	66.2 (1992)	48.0 (2010)
Lao PDR	18.6 (1993)	38.4 (2005)	115.0 (1992)	110.0 (2005)
Malaysia	55.1 (1994)	49.0 (2004)	20.0 (1991)	15.0 (2009)
Myanmar	16.8 (1991)	46.0 (2010)	29.0	17.4 (2001)
Philippines	40.0 (1993)	48.9 (2011)	52.0 (1991)	53.0 (2006)
Singapore	65.0 (1992)	62.0 (1997)	7.5	3.6 (2010)
Thailand	73.9 (1993)	79.6 (2009)	42.3	46.7 (2009)
Viet Nam	65.0 (1994)	77.8 (2011)	38.0 (1991)	35.0 (2009)
The Pacific				
Cook Islands	63.2 (1996)	43.2 (1999)	82.0 (1996)	47.0 (2001)
Fiji	...	...	58.6	31.1 (2004)
Kiribati	36.1 2000	22.3 (2009)	43.0	39.0 (2005)
Marshall Islands	...	44.6 (2007)	105.2 (1995)	104.8 (2006)
Micronesia, Fed. States of	...	...	54.0 (1994)	51.6 (2003)
Nauru	...	35.6 (2007)	69.6 (1992)	84.0 (2005)
Palau	...	32.8 (2003)	72.2	26.5 (2005)
Papua New Guinea	25.9 (1997)	32.4 (2007)	77.0 (1994)	70.0 (2000)
Samoa	24.5 (1998)	28.7 (2009)	25.0 (1991)	28.6 (2006)
Solomon Islands	...	34.6 (2007)	111.0	70.0 (2005)
Timor-Leste	25.1 (1991)	22.3 (2010)	85.0 (1992)	54.4 (2007)
Tonga	...	...	25.3	15.9 (2006)
Tuvalu	...	30.5 (2007)	41.3 (1991)	27.5 (2005)
Vanuatu	39.0 (1995)	38.4 (2007)	...	92.0 (1999)
Developed Member Economies				
Australia	66.7 (1995)	72.3 (2005)	21.5	15.5 (2010)
Japan	57.9 (1990)	54.3 (2005)	3.6	4.6 (2011)
New Zealand	...	75.0 (1995)	33.5	25.6 (2011)

continued

MDG 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health** (continued)

Regional Member	5.5 Antenatal Care Coverage (% of live births)		5.6 Unmet Need for Family Planning (% of women aged 15–49 years who are married or in consensual union)	
	≥ One Visit	≥ Four Visits	Earliest Year	Latest Year
Developing Member Economies				
Central and West Asia				
Afghanistan	47.9 (2011)	14.6 (2011)	...	...
Armenia	99.1 (2010)	92.8 (2010)	18.1 (2000)	13.5 (2010)
Azerbaijan	76.6 (2006)	45.2 (2006)	11.5 (2001)	15.4 (2006)
Georgia	97.6 (2010)	90.2 (2010)	23.8 (2000)	12.3 (2010)
Kazakhstan	99.9 (2006)	70.0 (1999)	16.3 (1995)	11.6 (2011)
Kyrgyz Republic	96.9 (2006)	81.1 (1997)	...	11.8 (1997)
Pakistan	60.9 (2007)	28.4 (2007)	30.5 (1991)	25.2 (2007)
Tajikistan	88.8 (2007)	49.4 (2007)	...	...
Turkmenistan	99.1 (2006)	82.8 (2000)	...	13.1 (2000)
Uzbekistan	99.0 (2006)	78.5 (1996)	...	13.7 (1996)
East Asia				
China, People's Rep. of	94.1 (2010)	...	3.3 (1992)	2.3 (2001)
Hong Kong, China	...	...	...	...
Korea, Rep. of	...	...	...	...
Mongolia	99.0 (2010)	...	9.9 (1998)	22.0 (2010)
Taipei, China	...	...	...	...
South Asia				
Bangladesh	54.6 (2011)	25.5 (2011)	21.6 (1994)	13.5 (2011)
Bhutan	97.3 (2010)	77.3 (2010)	...	11.7 (2010)
India	74.2 (2006)	37.0 (2006)	20.3 (1993)	20.5 (2008)
Maldives	99.1 (2009)	85.1 (2009)	...	28.6 (2009)
Nepal	58.3 (2011)	50.1 (2011)	27.7 (1992)	27.5 (2011)
Sri Lanka	99.4 (2007)	92.5 (2007)	18.2 (2000)	7.3 (2007)
Southeast Asia				
Brunei Darussalam	99.0 (2009)	...	...	...
Cambodia	89.1 (2010)	59.4 (2010)	33.0 (2000)	16.9 (2011)
Indonesia	92.7 (2010)	81.5 (2007)	17.0 (1991)	11.4 (2012)
Lao PDR	35.1 (2006)	...	39.5 (2000)	27.3 (2005)
Malaysia	90.7 (2009)	...	...	...
Myanmar	83.1 (2010)	73.4 (2007)	20.6 (1991)	19.1 (2001)
Philippines	91.1 (2008)	77.8 (2008)	30.2 (1993)	22.0 (2008)
Singapore	...	...	...	...
Thailand	99.1 (2009)	79.6 (2009)	...	3.1 (2006)
Viet Nam	93.7 (2011)	59.6 (2011)	8.4 (1997)	4.3 (2011)
The Pacific				
Cook Islands	100.0 (2008)	...	...	...
Fiji	100.0 (2008)	...	...	...
Kiribati	88.4 (2009)	70.8 (2009)	...	28.0 (2009)
Marshall Islands	81.2 (2007)	77.1 (2007)	...	8.1 (2007)
Micronesia, Fed. States of	80.0 (2008)	...	...	...
Nauru	94.5 (2007)	40.2 (2007)	...	23.5 (2007)
Palau	90.3 (2010)	81.0 (2010)	...	...
Papua New Guinea	78.8 (2006)	54.9 (2006)	...	27.4 (2007)
Samoa	93.0 (2009)	58.4 (2009)	...	47.7 (2009)
Solomon Islands	73.9 (2007)	64.6 (2007)	...	11.1 (2007)
Timor-Leste	84.4 (2010)	55.1 (2010)	18.3 (1991)	31.5 (2010)
Tonga	97.9 (2010)	...	...	...
Tuvalu	97.4 (2007)	67.3 (2007)	...	24.2 (2007)
Vanuatu	84.3 (2007)	...	...	...
Developed Member Economies				
Australia	98.3 (2008)	92.0 (2008)	...	...
Japan	...	...	...	...
New Zealand	95.0 (1994)	...	...	...

... = Data not available at cutoff date, ≥ = Greater than or equal to.

Sources: Millennium Indicators Database Online (UNSD 2013); for Taipei, China: Directorate-General of Budget, Accounting and Statistics.